



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/687,811

10/20/2003

Takeshi Ono

2003\_1458A

2618

513

7590

02/06/2007

WENDEROTH, LIND & PONACK, L.L.P.

2033 K STREET N. W.

SUITE 800

WASHINGTON, DC 20006-1021

EXAMINER

WEINSTEIN, LEONARD J

ART UNIT

PAPER NUMBER

3746

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

02/06/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/687,811

Applicant(s)

ONO ET AL.

Examiner

Leonard J. Weinstein

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 November 2006.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 13-31 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 13-31 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 14 November 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

1. This office action is in response to the amendments of 11/14/2006. It is noted that claims 1-12 have been canceled and new claims 13-31 have been added. In making the below rejections and/or objections the examiner has considered and addressed each of the applicant's arguments.

***Claim Rejections - 35 USC § 102***

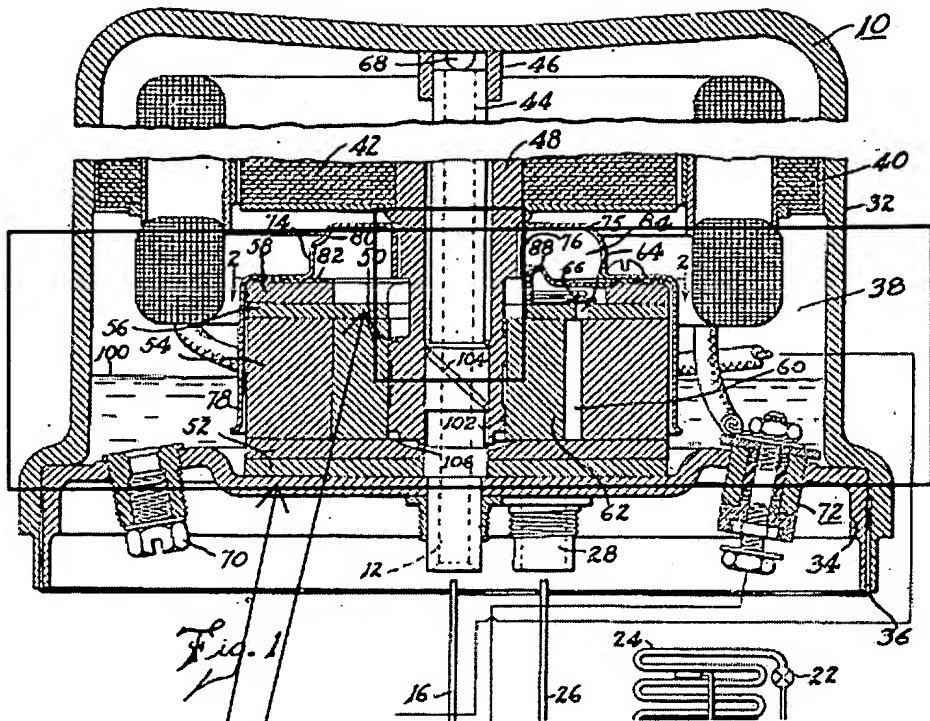
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action

3. Claims 13-17, 19-20, 22-24, 26-27, and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Tarleton 2,141,053. Tarleton teaches the invention as substantially claimed for a hermetically sealed electrically driving compressor including: a compressor element 62 elastically supported, via 70 in an enclosed container 32, a cup-shaped stopper 74 fixed to an inner upper part of said enclosed container (fig. 1 – examiner comment 1), said cup-shaped stopper 74 having a curved protrusion (fig. 4 – examiner comment 7) extending from an inner peripheral surface 84 of said cup-shaped stopper 74, a crankshaft 48 associated with said compressor element, with an upper end portion (fig. 1 – examiner comment #2) of said crankshaft 48 extending into said cup-shaped stopper 74, and a motor element, 40 and 42, for driving said compressor element 62; a curved protrusion (fig. 4 – examiner comment 7) has an apex (fig. 2 and 4 – examiner comment 3) and flanks (fig. 2 and 4 – examiner comment 4) on opposite sides of said apex, with said flanks (fig. 2 and 4 – examiner comment 4) each have a radius of curvature (fig. 2 – examiner comment 5) such that a center (fig. 2 – examiner comment 6) of the radius of curvature is positioned outside of said cup-shaped stopper

Art Unit: 3746

74; further in figures 2 and 4, Tarleton teaches flanks that are generally symmetrical relative to one another about an apex (fig. 2 and 4 – examiner comment 3); a cup-shaped stopper 74 comprises a ring member 88, and said curved protrusion (fig. 2 and 4 – examiner comment 7) is formed by deforming an outer peripheral portion (fig. 4 – examiner comment 8) of said ring member 88 such that a resulting deformation of an inner peripheral portion of said ring member corresponds to said curved protrusion (fig. 2 and 4 – examiner comment 7); and figure 4 teaches a curved protrusion (fig. 2 and 4 – examiner comment 3) that extends along an axial direction of said cup-shaped stopper 74. Figures 1, 2, and 4 of Tarleton are provided with examiner's comments on the following page.

Note the limitation, recited in claims 16, 19, 23, and 26, of a curved protrusion formed by the deforming an outer peripheral portion of a ring member is considered a product-by-process claim. Tarleton teaches the limitation of a curved protrusion and an inner ring member as discussed above, wherein the curved protrusion could be formed by deforming the inner ring member. Section 2113 of chapter 2100 of the MPEP states that even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).



Examiner Comment #1 -  
Enclosed Container  
within housing  
hermetically sealed  
compressor ( element 32)

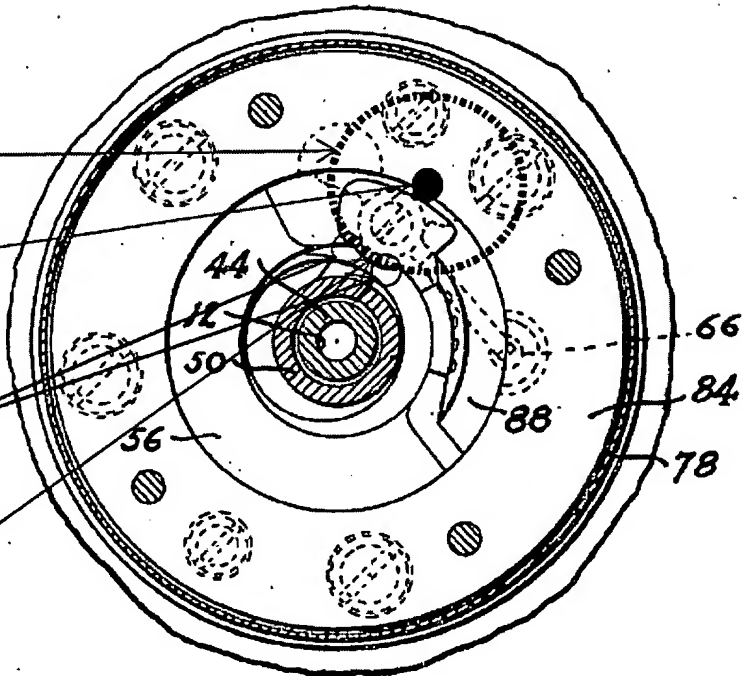
Examiner Comment #2 -  
Upper end portion of shaft  
(element 48) within  
enclosure of comment #1

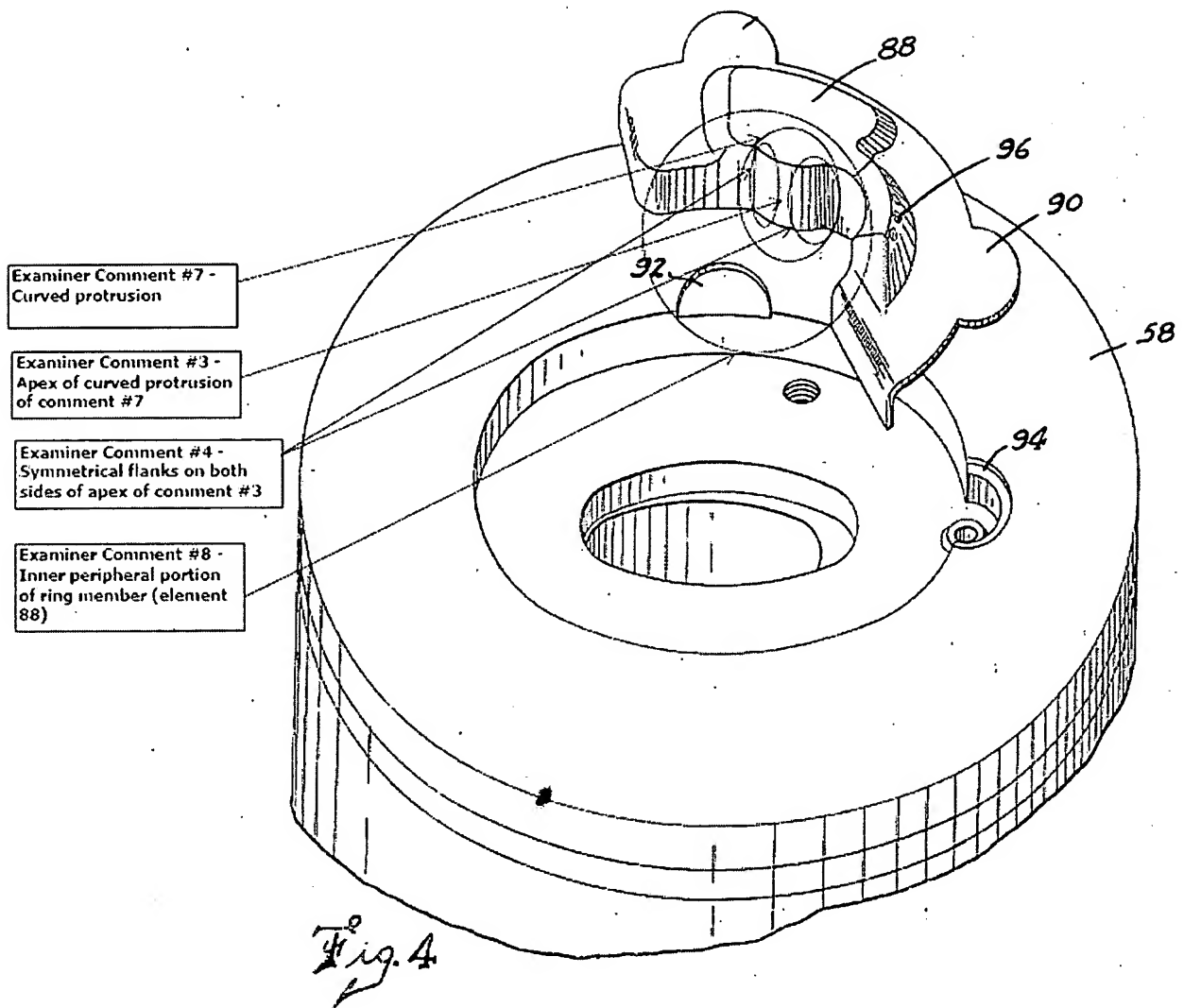
Examiner Comment #5 -  
Radius of curvature  
of flanks of comment #4

Examiner Comment #6 -  
Center of radius of  
curvature of comment #5

Examiner Comment #4 -  
Symmetrical flanks on both  
sides of apex of comment #3

Examiner Comment #3 -  
Apex of curved protrusion  
of comment #7





### ***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 18, 21, 25, 28, and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tarleton 2,141,053 as applied to claims 13-17, 22, 26, and 29 above, and further in view of Suzuki et al. 3,664,771 and Park 6,422,833. Tarleton teaches all

Art Unit: 3746

the limitations as discussed but fails to teach the following taught by Suzuki: a compressor element that is elastically supported, via 3 and 4, having a compressor chamber 11 and a piston 12 for reciprocating within said compressor chamber 11 in back and forth directions, and a protrusion extending generally orthogonal to the movement of the piston. Further Park teaches a cup shaped cylinder 60 mounted onto the inner surface of the top portion 11 of a hermetically sealed compressor casing 10 receiving a top end of a crankshaft 2. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the curved protrusion of Tarleton to the protector of Suzuki in a compressor configuration having a resonance reducer of Park to reduce noise due to vibration and reduce damage to a casing due to contact with the shaft during normal operation (Park – col. 1 ll. 59-64 and col. 2 ll. 40-47).

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 13-31 have been considered but are moot in view of the new ground(s) of rejection. The references above taken alone, with Tarleton, and combined, as with Suzuki and Park as discussed above, do teach a compressor including a stopper having a curved protrusion as required by claim 13. Further claims 14, 22 and 26 dependent upon claim 13 are taught by the references cited and discussed above.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are cited on form 892 herewith. Further Parker 4,137,014 teaches

Art Unit: 3746

a compressor having compressor means 18 in an alternate configuration with the top end of a shaft received by a generally cylindrical (cup shaped) section of a plate member having a ring member with a protrusion that limits the movement of the shaft.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard J. Weinstein whose telephone number is 571-272-9961. The examiner can normally be reached on Monday - Thursday 7:00 - 5:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg can be reached on 571-272-4828. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



LJW

1/31/2007



MICHAEL KOCZO  
PRIMARY EXAMINER  
Au 3746